Ontario

Ministry of Health and Long-Term Care
Public Health Division

Ontario Influenza Bulletin
2005-2006 Season

SURVEILLANCE WEEKS 51-52 (December 18 to December 31, 2005)

This issue of the Ontario Influenza Bulletin provides information on the surveillance period from December 18 to December 31, 2005. The analysis for this issue occurred on Thursday January 5th, 2006, therefore all data is current to that date.

During weeks 51 and 52, influenza activity increased in some parts of Ontario. Six sporadically occurring cases were reported through iPHIS, and one institutional outbreak attributed to influenza A was reported. The highest reported activity level for influenza in Ontario is currently in Toronto, with localized influenza activity.

For a definition of influenza-like illness (ILI) activity levels and links to websites providing current influenza information from other sources, please refer to the Appendix. If you would like to provide feedback, please contact Anne Arthur (anne.arthur@moh.gov.on.ca, 416-212-6377) or Anne-Luise Winter (anne-luise.winter@moh.gov.on.ca, 416-327-7301).

Table 1: Summary of laboratory-confirmed influenza cases (sporadic) and institutional outbreaks, by health region, December 18 to December 31, 2005.

	HEALTH REGION							TOTAL
	North West	North East	Eastern	Central East	Toronto	South West	Central West	
Lab-confirmed Influenza cases*								
Influenza A	0	0	0	0	2	1	2	5
Influenza B	0	0	0	0	0	0	1	1
Unspecified †	0	0	0	0	0	0	0	0
Total new cases	0	**0**	**0**	**0**	**2**	***1***	***3***	**6**
Institutional influenza outbreaks‡	0	0	0	0	1	0	0	1

SOURCE: MOHLTC [iPHIS, Health Unit Reports to PHD, Provincial Appendix D and Appendix E Database]
* Includes reports of sporadically occurring influenza through iPHIS, as well as cases in institutional outbreaks, with dates of onset in the surveillance period.
† Type of influenza, i.e. A vs B, was not specified in iPHIS (i.e. Influenza subtype drop-down menu left blank or reported as "Unspecified").
‡ Laboratory-confirmed outbreaks in institutions during the surveillance period.

Table 2: Confirmed* reports of influenza by health unit & health region, with an episode date† between December 18 and December 31, 2005.

Region	Health Unit	Laboratory-Confirmed Influenza			
		Influenza A	Influenza B	Unspecified‡	TOTAL
North West	Northwestern	0	0	0	0
	Thunder Bay District	0	0	0	0
	TOTAL NORTH WEST	**0**	**0**	**0**	**0**
North East	Algoma	0	0	0	0
	North Bay Parry Sound District	0	0	0	0
	Porcupine	0	0	0	0
	Sudbury & District	0	0	0	0
	Timiskaming	0	0	0	0
	TOTAL NORTH EAST	**0**	**0**	**0**	**0**
Eastern	Eastern Ontario	0	0	0	0
	Hastings & Prince Edward Counties	0	0	0	0
	Kingston, Frontenac, Lennox & Addington	0	0	0	0
	Leeds, Grenville & Lanark	0	0	0	0
	Ottawa	0	0	0	0
	Renfrew	0	0	0	0
	TOTAL EASTERN	**0**	**0**	**0**	**0**
Central East	Durham Region	0	0	0	0
	Haliburton, Kawartha, Pine Ridge District	0	0	0	0
	Peterborough County-City	0	0	0	0
	Simcoe Muskoka District	0	0	0	0
	York Region	0	0	0	0
	Peel Region	0	0	0	0
	TOTAL CENTRAL EAST	**0**	**0**	**0**	**0**
Toronto	Toronto	2	0	0	2
	TOTAL TORONTO	**2**	**0**	**0**	**2**
South West	Grey-Bruce	0	0	0	0
	Elgin-St. Thomas	0	0	0	0
	Huron County	0	0	0	0
	Chatham-Kent	0	0	0	0
	Lambton	0	0	0	0
	Middlesex-London	0	0	0	0
	Oxford	0	0	0	0
	Perth District	1	0	0	1
	Windsor-Essex County	0	0	0	0
	TOTAL SOUTHWEST	**1**	**0**	**0**	**1**
Central West	Brant	0	0	0	0
	Haldimand-Norfolk	0	0	0	0
	Hamilton	2	1	0	3
	Niagara Region	0	0	0	0
	Halton Region	0	0	0	0
	Waterloo Region	0	0	0	0
	Wellington-Dufferin-Guelph	0	0	0	0
	TOTAL CENTRAL WEST	**2**	**1**	**0**	**3**
	TOTAL ONTARIO	***5***	***1***	***0***	***6***

SOURCE: MOHLTC [iPHIS, Health Unit Reports to PHD]
* Confirmed cases of influenza can include laboratory-confirmed cases and epi-linked cases.
† The episode date corresponds to symptom onset date.
‡ Type of influenza, i.e. A vs B, was not specified in iPHIS (i.e. Influenza subtype dropdown menu left blank or reported as unspecified)

Table 3: Cumulative* confirmed† cases of influenza by health unit & health region, September 1, 2005 to December 31, 2005.

Region	Health Unit	Laboratory-Confirmed Influenza			
		Influenza A	Influenza B	Unspecified‡	TOTAL
North West	Northwestern	0	0	0	0
	Thunder Bay District	0	0	0	0
	TOTAL NORTH WEST	**0**	**0**	**0**	**0**
North East	Algoma	0	0	0	0
	North Bay Parry Sound District	0	0	0	0
	Porcupine	0	0	0	0
	Sudbury & District	0	0	0	0
	Timiskaming	0	0	0	0
	TOTAL NORTH EAST	**0**	**0**	**0**	**0**
Eastern	Eastern Ontario	0	0	0	0
	Hastings & Prince Edward Counties	0	0	0	0
	Kingston, Frontenac, Lennox & Addington	0	0	1	1
	Leeds, Grenville & Lanark	0	0	0	0
	Ottawa	1	0	0	1
	Renfrew	0	0	0	0
	TOTAL EASTERN	**1**	**0**	**1**	**2**
Central East	Durham Region	0	0	0	0
	Haliburton, Kawartha, Pine Ridge District	2	0	0	2
	Peterborough County-City	0	0	0	0
	Simcoe Muskoka District	1	0	0	1
	York Region	0	1	0	1
	Peel Region	0	0	0	0
	TOTAL CENTRAL EAST	**3**	**1**	**0**	**4**
Toronto	Toronto	4	0	0	4
	TOTAL TORONTO	**4**	**0**	**0**	**4**
South West	Grey-Bruce	0	0	0	0
	Elgin-St. Thomas	0	0	0	0
	Huron County	2	0	0	2
	Chatham-Kent	0	0	0	0
	Lambton	0	0	0	0
	Middlesex-London	0	1	0	1
	Oxford	0	0	0	0
	Perth District	1	0	0	1
	Windsor-Essex County	0	0	0	0
	TOTAL SOUTHWEST	**3**	**1**	**0**	**4**
Central West	Brant	0	0	0	0
	Haldimand-Norfolk	0	0	0	0
	Hamilton	2	1	0	3
	Niagara Region	0	0	1	1
	Halton Region	1	0	0	1
	Waterloo Region	1	0	0	1
	Wellington-Dufferin-Guelph	0	0	0	0
	TOTAL CENTRAL WEST	**4**	**1**	**1**	**6**
	TOTAL ONTARIO	***15***	***3***	***2***	***20***

SOURCE: MOHLTC [iPHIS, Health Unit Reports to PHD]

* Cumulative case counts include late reports and records that are otherwise reconciled. Therefore, cumulative counts may not equal new cases plus previous cumulative value.

† Confirmed cases of influenza can include laboratory-confirmed cases and epi-linked cases.

‡ Type of influenza, i.e. A vs B, was not specified in iPHIS (i.e. Influenza subtype dropdown menu left blank or reported as unspecified)

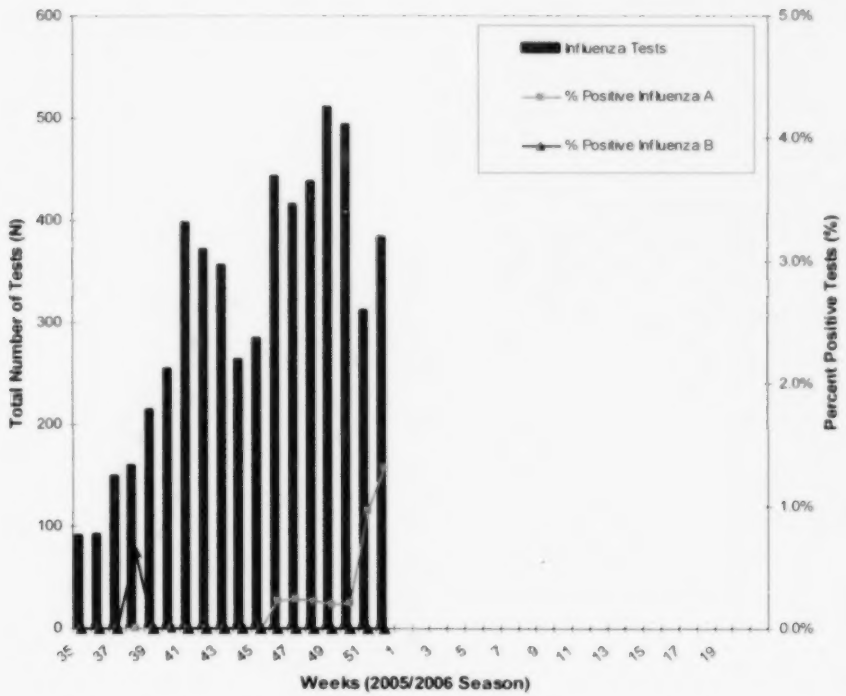
Influenza Subtype(s):

Between September 1 and December 24, 2005, 18,629 influenza tests were conducted across Canada, with a total of 199 positive results returned. 77 isolates were identified as influenza A, with 45 occurring in British Columbia. There were 122 positive tests for influenza B; 115 of which occurred in Alberta.

Since the start of the 2005-2006 influenza season, the National Microbiology Laboratory (NML) has antigenically characterized 32 influenza viruses; 19 A/California/07/04-like viruses (4 in Ontario, 3 in Saskatchewan and 12 in British Columbia), 10 B/Hong Kong/330/01-like viruses (9 in Alberta & 1 in British Columbia) belonging to the B/Victoria/2/87 lineage, and 3 B/Shanghai/361/02-like viruses (Ontario, Alberta & British Columbia) belonging to the B/Yamagata/16/88 lineage.

* As this data must be obtained from FluWatch (Public Health Agency of Canada), the data presented is inclusive to December 24, 2005.

Figure 1: Total number of influenza tests performed and percent of positive tests in Ontario reported to the Centre for Infectious Disease Prevention and Control (CIDPC), by report week*.



Source: Public Health Agency of Canada

* Total numbers reported include late reports; therefore totals may not be equal to the sum of the weekly numbers.

Note: Cumulative numbers for season to date are available through FluWatch:
http://www.phac-aspc.gc.ca/fluwatch/

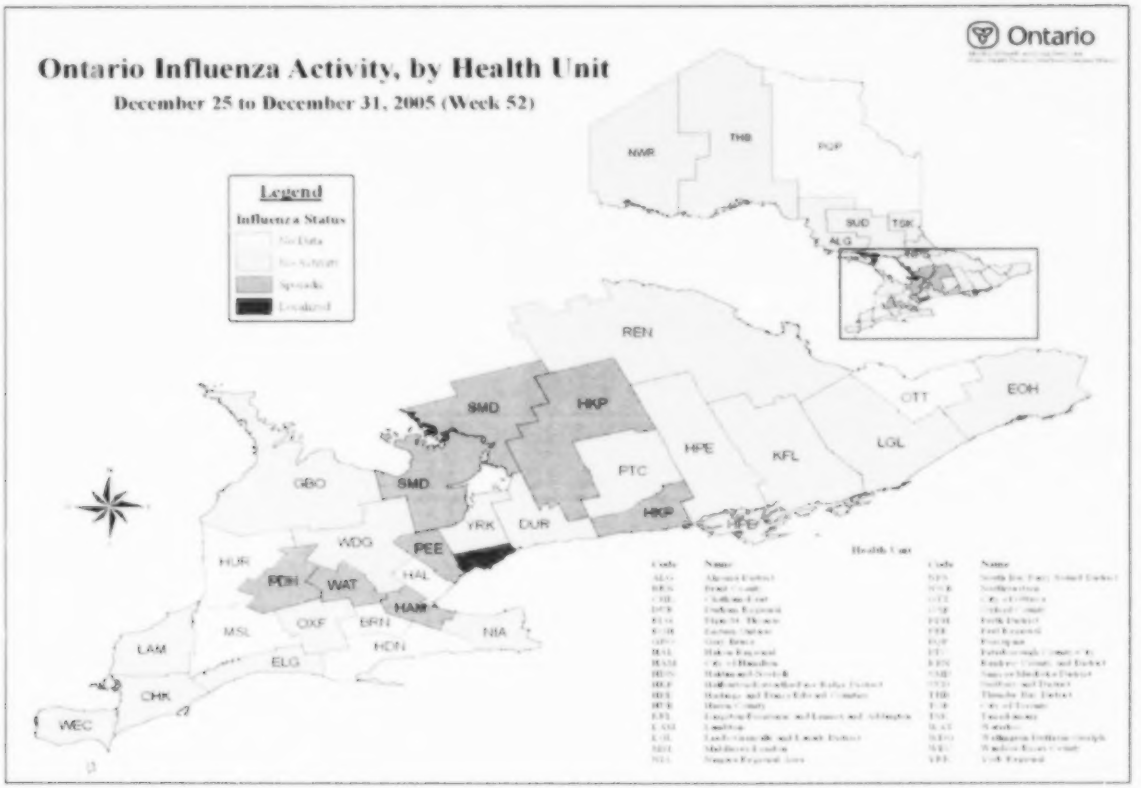
Table 4: Institutional respiratory outbreaks in Ontario, September 1, 2005 to December 31, 2005.

Institutional Respiratory Infection Outbreaks

New Outbreaks*	**N**	**% (of outbreaks)**
Influenza A	1	3.8
Influenza B	0	0.0
Influenza A and B	0	0.0
Parainfluenza (All types)	0	0.0
Other organisms	0	0.0
No organism identified	25	96.2
TOTAL	***26***	***100.0***
Total Respiratory Infection Outbreaks, Season to Date†	**N**	**% (of outbreaks)**
Influenza A	1	0.4
Influenza B	0	0.0
Influenza A and B	0	0.0
Parainfluenza (All types)	15	6.8
Other organisms	45	20.5
No organism identified	159	72.3
TOTAL	***220***	***100.0***
Types of Institutions (All Outbreaks)	**N**	**% (of outbreaks)**
Long-Term Care Homes	192	87.3
Hospitals	8	3.6
Retirement Homes	20	9.1
Other	0	0.0
TOTAL	***220***	***100.0***
Outbreak Related Complications (All Outbreaks)	**N**	**% (of cases)**
Deaths		
Residents	72	2.7
Staff	0	0.0
Pneumonia (Chest x-ray confirmed)		
Residents	131	4.9%
Staff	9	1.2%
Hospitalizations		
Residents	162	6.1%
Staff	2	0.3%

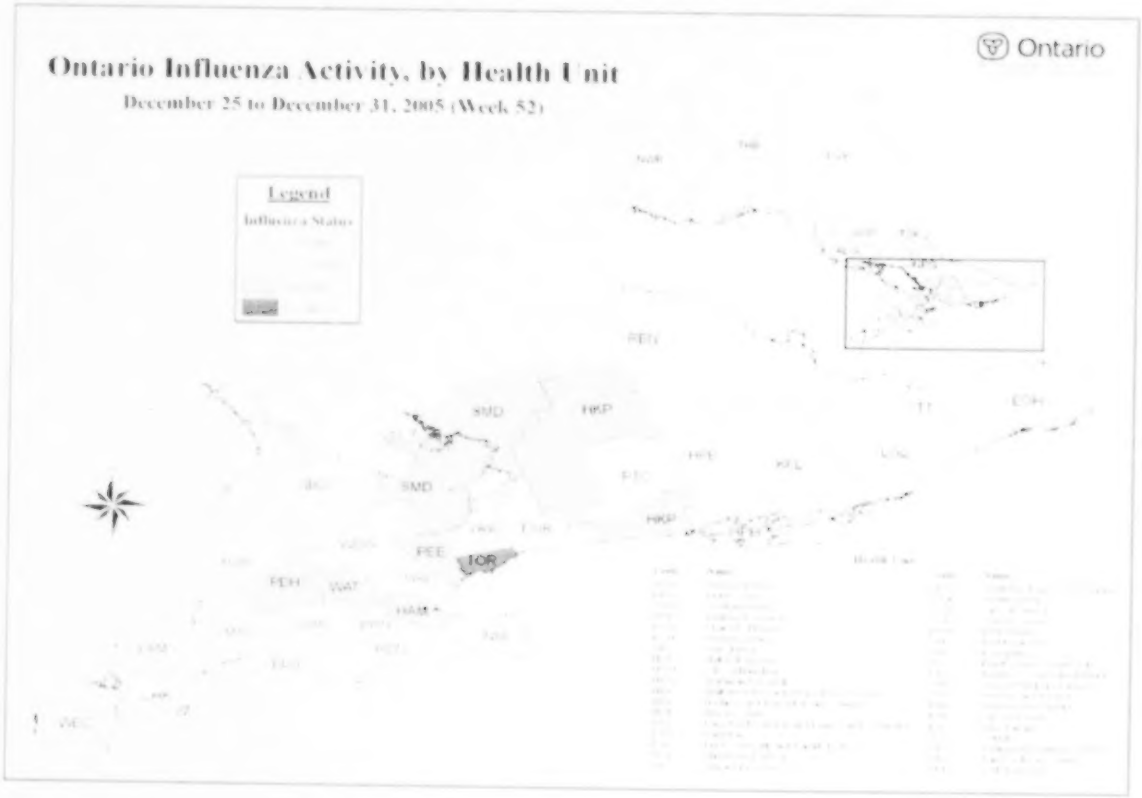
SOURCE: MOHLTC [Provincial Appendix D and Appendix E Database]
* Season to date includes all outbreaks in which the date of onset of the first case occurred between September 1, 2005 and December 31, 2005.
† New outbreaks are those in which the date of onset of the first case occurred in the surveillance period (December 18 to December 31, 2005).

Figure 2: Influenza activity* in Ontario by health unit, December 25 to December 31, 2005 (Week 52).



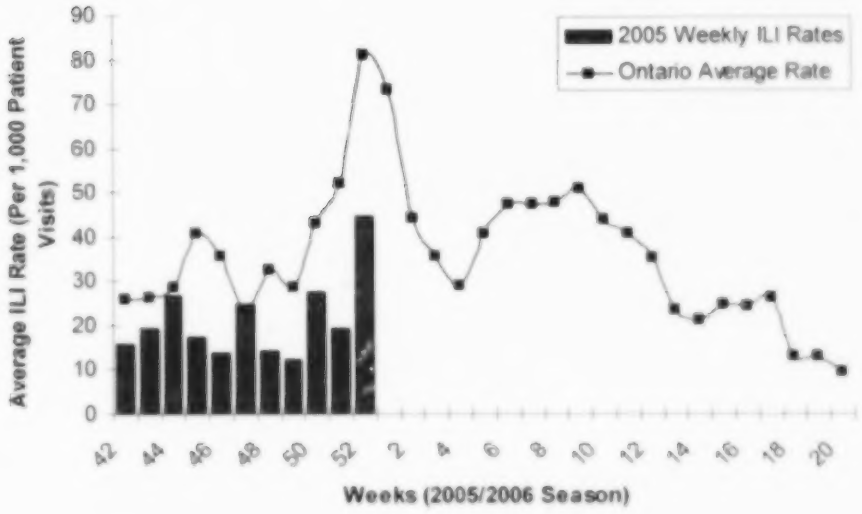
SOURCE: MOHLTC [Provincial Influenza Activity Report (Appendix C) Database]
* Influenza activity levels, as represented on this map, are assigned by local public health units and reported to the MOHLTC by the Tuesday following the end of the surveillance week at 4 pm. Activity levels are assigned based on laboratory confirmations, ILI reports from various sources, and laboratory-confirmed institutional outbreaks. Please refer to detailed definitions for the 2005-2006 season included in the Appendix.

Figure 2: Influenza activity* in Ontario by health unit, December 25 to December 31, 2005 (Week 52).



SOURCE: MOHLTC [Provincial Influenza Activity Report (Appendix C) Database]
* Influenza activity levels, as represented on this map, are assigned by local public health units and reported to the MOHLTC by the Tuesday following the end of the surveillance week at 4 pm. Activity levels are assigned based on laboratory confirmations, ILI reports from various sources, and laboratory-confirmed institutional outbreaks. Please refer to detailed definitions for the 2005-2006 season included in the Appendix.

Figure 3: Average influenza-like illness rate (per 1,000 patient visits) reported by sentinel physicians* in Ontario, by report week, compared to Ontario average† (1996/96 to 2004/05 seasons).



Source: Public Health Agency of Canada

* Sentinel physician information is reported to Public Health Agency of Canada

† No data available for mean rate in previous years for weeks 21 to 39 (1996-1997 through 2002-2003 seasons). During weeks 20-39, 2002-2003/2004-2005 seasons, ILI is reported once every two weeks, on even weeks only.

Table 5: Average Influenza-like illness rate (per 1,000 patient visits) reported by sentinel physicians* in Ontario, by age group and postal code

Postal Code	0 – 4	5 – 19	20 – 64	65 +	Unknown
K1J9M2	0	2	0	0	0
K7L1E9	0	0	0	0	0
K0L1C0	0	0	0	0	0
K0K1H0	0	0	0	0	0
L4L4Y7	0	0	0	0	0
L4J7Y3	0	0	0	0	0
M5M1B2	0	0	0	0	0
M4X1W4	0	0	0	0	0
M4B1V9	0	0	0	0	0
M4H1C3	0	0	1	0	0
M8Y1W3	0	2	0	0	0
M3H1T1	2	0	1	0	0
M9W4L6	3	0	1	0	0
L5J2W4	0	0	0	2	0
L9H1V1	0	0	0	0	0
L9H2G2	0	0	2	1	0
L0R1H0	0	0	0	0	0
L2E1Y3	0	0	0	0	0
N2G1P2	0	0	0	0	0
N2M3B5	1	1	0	0	0
N0M1T0	0	0	0	0	0
N6C2R5	0	0	0	0	0
N0M1L0	2	0	0	0	0
N0C1E0	0	0	0	0	0
L4R4P4	0	0	0	0	0
K0J1B0	0	0	0	0	0
P0H2H0	0	0	2	0	0
P0P1S0	0	0	0	0	0
P3E5V5	0	0	0	0	0
P0T2E0	0	0	1	0	0
P8N2Z6	0	0	0	0	0
ILI Sum	**8**	**5**	**8**	**3**	**0**
ILI Rate (per 1,000 patient visits)	***156.86***	***89.29***	***28.27***	***20.41***	***0.00***

Source: Public Health Agency of Canada
* Sentinel physician information is reported to the Public Health Agency of Canada
Note: The small numbers of sentinel physicians reporting at the local level make the ILI rates unstable. Please interpret these data correspondingly

FURTHER INFORMATION

1. Ontario Ministry of Health and Long-Term Care
   Previous issues of the Ontario Influenza Bulleting can be accessed at:
   www.health.gov.on.ca/english/providers/program/pubhealth/flu/flu_04/flubul_mn.html

2. Public Health Agency of Canada
   Issues of FluWatch can be accessed at:
   www.phac-aspc.gc.ca/fluwatch/

3. United States Centers for Disease Control and Prevention
   www.cdc.gov/flu/

APPENDIX

Definitions for influenza activity levels:

No Data: No activity report corresponding to the surveillance week was received at the Ministry of Health and Long-Term Care Call Centre by the Tuesday (at 4 p.m.) following the end of the surveillance period.
No Activity = No ILI and no laboratory-confirmed cases* or outbreaks occurred.
Sporadic: sporadically occurring ILI **AND** laboratory-confirmed influenza* with NO outbreaks detected within the influenza surveillance region†
Localized: sporadically occurring ILI **AND** laboratory-confirmed influenza* together with outbreaks of ILI in schools and worksites or laboratory confirmed influenza in residential institutions occurring in less than 50% of the influenza surveillance region(s)
Widespread: sporadically occurring ILI **AND** laboratory-confirmed influenza* together with outbreaks of ILI in schools and worksites or laboratory-confirmed influenza in residential institutions occurring in greater than or equal to 50% of the influenza surveillance region(s)

* Confirmation of influenza within the surveillance region at any time within the prior four weeks
† Sub-regions within the province or territory as defined by the provincial/territorial epidemiologist

Influenza-Like Illness (ILI) Definitions:

A) ILI in the general population:

Acute onset of respiratory illness with fever and cough and with one or more of the following - sore throat, arthralgia, myalgia, or prostration which could be due to influenza virus. In children under 5, gastrointestinal symptoms may also be present. In patients under 5 or 65 and older, fever may not be prominent.

B) ILI/Influenza outbreaks:

Schools and work sites: greater than 10% absenteeism on any day most likely due to ILI
Residential institutions: two or more cases of ILI within a seven-day period, including at least one laboratory-confirmed case.